Serial No.: 09/831,846

Filed : May 15, 2001

Page : 2 of 8

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Withdrawn) A DNA selected from the group consisting of the following (a) through (e):
- (a) a DNA encoding a protein comprising the amino acid sequence set forth in SEQ ID NO: 2;
- (b) a DNA comprising the coding region of the base sequence set forth in SEQ ID NO: 1;
- (c) a DNA encoding a protein comprising the amino acid sequence set forth in SEQ ID NO: 2 which is modified by deletion and/or addition of one or more amino acid residues, and/or substitution with other amino acids, and functionally equivalent to the protein comprising the amino acid sequence set forth in SEQ ID NO: 2;
- (d) a DNA hybridizing to the DNA comprising the base sequence set forth in SEQ ID NO: 1, and encoding a protein functionally equivalent to the protein comprising the amino acid sequence set forth in SEQ ID NO: 2; and
- (e) a DNA comprising a DNA according to any of (a) through (d) and a DNA encoding other peptide or polypeptide, encoding a fusion protein.
 - 2. (Withdrawn) A vector having the DNA according to claim 1 inserted therein.
 - 3. (Withdrawn) A transformant carrying the DNA according to claim 1.
 - 4. (Cancelled)

Serial No.: 09/831,846 Filed: May 15, 2001

Page : 3 of 8

5. (Withdrawn) A method for producing a protein, said method comprising the steps of culturing the transformant according to claim 3 and recovering the expressed protein from said transformant or the culture supernatant thereof.

- 6. (Withdrawn) An antibody binding to the protein according to claim 4.
- 7. (Withdrawn) A method of screening for a compound which binds to a protein, said method comprising the steps of:
 - (a) bringing the protein according to claim 4 into contact with a sample to be tested, and
 - (b) selecting a compound having the activity to bind to the protein.
- 8. (Withdrawn) A method for detecting or measuring a protein, said method comprising bringing the antibody according to claim 6 into contact with a test sample, and detecting or measuring the formation of an immune complex of said antibody and a protein that specifically binds said antibody.
- 9. (Withdrawn) A polynucleotide hybridizing to the DNA comprising the base sequence according to SEQ ID NO: 1 or a complementary strand thereof and having a chain length of at least 15 bases.
- 10. (Currently Amended) [[A]] <u>An isolated protein comprising the amino acid sequence</u> set forth in SEQ ID NO: 2.
- 11. (Currently Amended) [[A]] An isolated protein comprising the amino acid sequence set forth in SEQ ID NO: 2, which is modified by one or more of: (i) deletion of one to thirty amino acids; and/or (ii) addition of one to thirty or more amino acid residues, and/or or (iii) substitution of one to thirty amino acids with other amino acids, wherein the protein binds a a PDZ protein. and functionally equivalent to the protein comprising the amino acid sequence set forth in SEQ ID NO: 2.
- 12. (New) The protein of claim 11, wherein the number of amino acids that are deleted, added, and/or substituted is two to thirty.

Serial No.: 09/831,846 Filed: May 15, 2001

Page : 4 of 8

13. (New) The protein of claim 12, wherein the number of amino acids that are deleted, added, and/or substituted is two to ten.

- 14. (New) A protein encoded by a DNA hybridizing at 65°C in 2x SSC and 0.1% SDS to a DNA consisting of the complement of SEQ ID NO:1, wherein the protein binds a PDZ protein.
- 15. (New) A fusion protein comprising a protein according to claim 10 fused to another peptide or polypeptide.
 - 16. (New) An isolated protein consisting of the amino acid sequence of SEQ ID NO: 2.
 - 17. (New) An isolated protein comprising amino acids 21 to 789 of SEO ID NO: 2.
 - 18. (New) An isolated protein consisting of amino acids 21 to 789 of SEQ ID NO: 2.
- 19. (New) An isolated protein comprising a sequence that is at least 95% identical to SEQ ID NO:2, wherein the protein binds a PDZ protein.
- 20. (New) The fusion protein of claim 15, wherein the other peptide or polypeptide is selected from the group consisting of FLAG, 6 histidine residues, 10 histidine residues, influenza hemagglutinin, human c-myc fragment, VSV-GP fragment, p18HIV fragment, T7-tag, HSV-tag, E-tag, SV40 antigen fragment, lck tag, α-tubulin fragment, B-tag, protein C fragment, glutathione-S-transferase, immunoglobulin constant region, β-galactosidase, green fluorescent protein, and maltose-binding protein.
- 21. (New) A fusion protein comprising a protein according to claim 17 fused to another amino acid sequence.
- 22. (New) The fusion protein of claim 21, wherein the other amino acid sequence is selected from the group consisting of FLAG, 6 histidine residues, 10 histidine residues, influenza hemagglutinin, human c-myc fragment, VSV-GP fragment, p18HIV fragment, T7-tag, HSV-tag, E-tag, SV40 antigen fragment, lck tag, α-tubulin fragment, B-tag, protein C fragment, glutathione-S-transferase, immunoglobulin constant region, β-galactosidase, green fluorescent protein, and maltose-binding protein.

Serial No.: 09/831,846 Filed: May 15, 2001

Page : 5 of 8

23. (New) A method of screening for a compound that binds to a G protein-coupled receptor protein, the method comprising:

- (a) exposing a test sample to the protein of claim 10, and
- (b) selecting a compound that binds to the protein.
- 24. (New) The method of claim 23, wherein the protein consists of SEQ ID NO:2.
- 25. (New) The method of claim 23, wherein the protein is a fusion protein comprising amino acids 21 to 789 of SEQ ID NO:2 and another peptide or polypeptide.
- 26. (New) The method of claim 25, wherein the other peptide or polypeptide is selected from the group consisting of FLAG, 6 histidine residues, 10 histidine residues, influenza hemagglutinin, human c-myc fragment, VSV-GP fragment, p18HIV fragment, T7-tag, HSV-tag, E-tag, SV40 antigen fragment, lck tag, α-tubulin fragment, B-tag, protein C fragment, glutathione-S-transferase, immunoglobulin constant region, β-galactosidase, green fluorescent protein, and maltose-binding protein.
- 27. (New) A method of producing an antibody, the method comprising immunizing an animal with a polypeptide comprising (a) SEQ ID NO:2 or (b) an antigenic fragment of SEQ ID NO:2.
 - 28. (New) The method of claim 27, wherein the polypeptide consists of SEQ ID NO:2.